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OKLAHOMA ALLIANCE FOR MANUFACTURING EXCELLENCE (THE ALLIANCE)

Serving firms throughout Oklahoma via a network of over 25 broker/agents and sector specialists. Affiliated with the Oklahoma Center for the Advancement of Science and Technology. Contact: Roy Peters, 525 South Main Street, Suite 210, Tulsa, OK 74103, (918) 592-0722, Fax: (918) 592-1417, Email: roy.peters/alliance@okalliance.com, Website: <http://www.okalliance.com/>

THE MANUFACTURING EXTENSION PARTNERSHIP IN OKLAHOMA

Manufacturing Extension Partnership (MEP) is a nationwide system of services and support for smaller manufacturers to become more globally competitive. At the heart of the system is a network of affiliated, locally-based manufacturing extension centers. Each center, like The Alliance, is a partnership, typically involving federal, state, and local governments; industry; educational institutions; and other sources of expertise, information and funding support.

COMPANY CLIPS**Enardo Says "Adios" To Mexican Relocation**

Enardo Manufacturing is a Tulsa manufacturer of vent valves, hatches, and flame arresters for the oil, petrochemical, and pharmaceutical industries. Founded in 1933, the company currently employs 43 people. Like most small and mid-sized Oklahoma manufacturers, Enardo faced the challenge of coping with competitive pricing pressures from domestic and foreign sources while trying to expand market share and profits. As part of its manufacturing process, Enardo machines and finishes raw casters supplied by several vendors in northeastern Oklahoma. Enardo needed to reduce the cost of producing its products, and began to explore foreign sources to supply a machined, finished part. The company looked at several suppliers, including operations in Canada, India, and Asia. The best price Enardo could find was from a supplier in Mexico. Late in 2001, Enardo began the process of shifting operations south of the border. Around that time, the company met with the Oklahoma Alliance for Manufacturing Excellence (The Alliance) which offered an alternative to the move.

Enardo took the advice of The Alliance and decided to give lean manufacturing a try. Working through The Alliance, Enardo received a workforce investment grant offered by the Oklahoma Employment Security Commission. Initially, Enardo paid for a Lean 101 introductory course. The employees moved on to a Value Stream Mapping course and discussed problems with the process while determining possible solutions. The two courses cost Enardo about \$6,500 but qualified the company for the grant. The grant mostly covered the \$5,000 expense of Enardo's next step—a pilot implementation project. Enardo's pilot project, which took place on its vent valve product line, was a success. By reducing its raw material inventory by 80 percent, its work-in-process by 53 percent, and its lead time by

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STATE STATS

DATA* COVERS JANUARY TO DECEMBER 2001

Number of projects completed with firms
484

Number of firms served
280

Number of firms served for
the first time
149

Federal cost share for current
operating year
\$975,600

State/other cost share for current
operating year
\$1,951,200

**Data as reported from center*

DATA** COVERS JANUARY TO DECEMBER 2001

Increased sales & retained sales
\$19,225,000

Client capital investment
\$5,469,100

Total cost savings
\$6,896,600

Job (created & retained)
508

***Source: Independent client impact survey*



75 percent, the company squeezed out enough efficiency to keep operations in Oklahoma. That accomplishment saved 25 jobs not only at Enardo but also jobs at its suppliers in area towns such as Glenpool, Prattville, and Chelsea, Oklahoma.

Little Giant Pumps Up Productivity

Little Giant Pump Company, located in Oklahoma City, is a manufacturer of submersible pumps in various sizes. The company, founded in 1941, employs nearly 500 people.

In 2000, Little Giant Pump Company embarked on a major effort to train its employees in the principals of lean manufacturing, but product acquisitions and employee resource bandwidth interfered with the initiative. In early 2001, Little Giant turned to the Oklahoma Alliance for Manufacturing Excellence (The Alliance) for help implementing a viable lean manufacturing program.

The Alliance revitalized Little Giant's lean initiative by conducting lean manufacturing refresher classes, eventually training all Little Giant employees. The Alliance held value stream mapping (VSM) workshops on-site and whole divisions of employees attended VSM courses offered by The Alliance. After a successful pilot project on one assembly line, company management made the decision to initiate lean manufacturing company-wide using the kaizen blitz structure championed by NIST MEP. Little Giant is more than halfway through its lean transformation. It is enjoying dramatic increases in production (increasing the number of units produced per shift by 133 percent and reducing lead times by 22.5 percent), as well as significant decreases in space requirements (decreased assembly line length by 81.2 percent and required floor space by 42.4 percent) and overall cycle times (reduced by 68.4 percent). The changes implemented on the shop floor have produced a safer working environment for Little Giant's employees.